## INTERNATIONAL SEARCH REPORT

PCT/GB2004/004675

A. CLASSIFICATION OF SUBJECT MATTER IPC 7 B01D46/52

According to International Patent Classification (IPC) or to both national classification and IPC

## B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols) IPC 7-801D

Documentation searched other than minimum documentation to the extent that such documents are included. In the fields searched

Electronic data base consulted during the international search (name of data base and, where practical, search terms used)

EPO-Internal, WPI Data

Category °	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to daim No.
Х	EP 0 542 396 A (USM ESPANA SA; BRITISH UNITED SHOE MACHINERY (GB)) 19 May 1993 (1993-05-19) abstract; figures 1,4 column 10, line 28 - line 32	1
Α	DE 33 04 350 A (SCHUMANN TEXTILE INDUSTRIEPROD) 9 August 1984 (1984-08-09) page 6, line 16 - line 21 page 8, line 27 - page 9, line 29; figures 1-7	
A	GB 2 294 649 A (BTR PLC) 8 May 1996 (1996-05-08) abstract; figure 5 page 7, line 3 - line 6	
	-/	

1	
Y Further documents are listed in the continuation of box C.	χ Patent family members are listed in annex.
Special categories of cited documents:  A' document defining the general state of the art which is not considered to be of particular relevance  E' earlier document but published on or after the international filing date  L' document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)  O' document referring to an oral disclosure, use, exhibition or other means  P' document published prior to the international filing date but tater than the priority date claimed	*T later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention  *X* document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone  *Y* document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skillect in the art.  *&* document member of the same patent family
Date of the actual completion of the international search	Date of mailing of the international search report
21 January 2005	31/01/2005
Name and mailing address of the ISA	Authorized officer
European Patent Office, P.B. 5818 Patentlaan 2 NL – 2280 HV Rijswijk Tet. (+31–70) 340–2040, Tx. 31 651 epo nl, Fæx: (+31–70) 340–3016	Sembritzki, T

## INTERNATIONAL SEARCH REPORT

PCT/GB2004/004675

	INTERNATIONAL SEARCH REPORT	PCT/GB20	004/004675		
C.(Continua	ation) DOCUMENTS CONSIDERED TO BE RELEVANT				
Category °	Citation of document, with Indication, where appropriate, of the relevant passages		Relevant to claim No.		
A	DE 40 21 607 A (SCHUMANN KLAUS) 9 January 1992 (1992-01-09) abstract; figures 1,9				
4	EP 0 692 293 A (NITTETSU MINING CO LTD) 17 January 1996 (1996-01-17) abstract; figures 19-22	•			
	·				
	•				

## INTERNATIONAL SEARCH REPORT

PCT/GB2004/0046	57	75
-----------------	----	----

	atent document d in search report		Publication date		Patent family member(s)		Publication date	
EP	0542396	A	19-05-1993	EP JP US	0542396 / 5277321 / 5230455 /	A	19-05-1993 26-10-1993 27-07-1993	
DE	3304350	Α	09-08-1984	DE	3304350	A1	09-08-1984	
GB	2294649	Α	08-05-1996	WO	9614134	A2	17-05-1996	
DE	4021607	Α	09-01-1992	DE	4021607	A1	09-01-1992	
EP	0692293	A	17-01-1996	JP JP JP AT CA CN DE DE US	3383423 8024544 3383426 8033823 185494 2144298 1119962 69512713 69512713 0692293 5558689	A B2 A T A1 A,B D1 T2 A1	04-03-2003 30-01-1996 04-03-2003 06-02-1996 15-10-1999 13-01-1996 10-04-1996 18-11-1999 09-03-2000 17-01-1996 24-09-1996	